

DEVELOPING LAND GOVERNANCE CAPACITIES IN THE ARAB REGION

Patterns, Challenges and Opportunities for Improving the Existing Learning Offer



الاراضي العربية
Arab Land Initiative



GLTN
GLOBAL LAND TOOL NETWORK

DEVELOPING LAND GOVERNANCE CAPACITIES IN THE ARAB REGION: PATTERNS, CHALLENGES AND OPPORTUNITIES FOR IMPROVING THE EXISTING LEARNING OFFER

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THE GLOBAL LAND TOOL NETWORK AND THE ARAB LAND INITIATIVE

GLTN is a multi-sectoral alliance of international partners committed to increasing access to land and tenure security for all, with a focus on the poor, women and youth. The Network's partners include international rural and urban civil society organizations, research and training institutions, bilateral and multilateral organizations, and international professional bodies. In 2016, GLTN Partners, led by UN-Habitat and the World Bank, launched the Arab Land Initiative to promote equal access to land, peace, stability and economic growth in the Arab region through good land governance and transparent, efficient and affordable land administration systems. The Initiative aims at empowering land champions from the region by developing capacities, increasing collaboration and promoting innovation, learning and sharing of best practices. It also supports the implementation of land gender-responsive and fit-for-purpose land tools and approaches at national and local level. The Research Innovation Fund is one of the streams of work of the Arab Land Initiative.

For more information, please consult the referenced documents, visit www.gltn.net or write to unhabitat-gltn@un.org.

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ABBREVIATIONS

GCC	Gulf Cooperation Council
GIS	Geographic Information System
GLTN	Global Land Tool Network
KSA	Kingdom of Saudi Arabia
PMP	Project Management Professional
UN-Habitat	United Nations Human Settlements Programme
UAE	United Arab Emirates
UTI	Urban Training and Studies Institute

1. MAPPING THE LEARNING OFFER IN THE ARAB REGION

This paper presents the results of a study of the education and training courses related to land governance in the Arab region and the key elements of their curricula. It assesses the quantity and thematic coverage of the learning offered and identifies the gaps and the opportunities for engaging with existing education and training institutions to complement the existing learning offer. Also, it provides suggestions and directions for establishing more comprehensive curricula on land governance across the region.

The regional assessment was carried out in 18 Arab states across the Mashreq (Iraq, Jordan, Lebanon, Palestine, Syria), the Gulf Cooperation Council (Bahrain, Kuwait, Qatar, Oman, Saudi Arabia, United Arab Emirates) and Yemen, and North Africa (Algeria, Egypt, Libya, Morocco, Sudan, Tunisia). This regional assessment does not include Djibouti, Somalia, Mauritania and Comoros.

This scope was chosen due to the fact that the learning offer for specific competencies and higher education is not homogeneously distributed across the countries. Experts are often trained in neighbouring countries within the region or outside its borders.

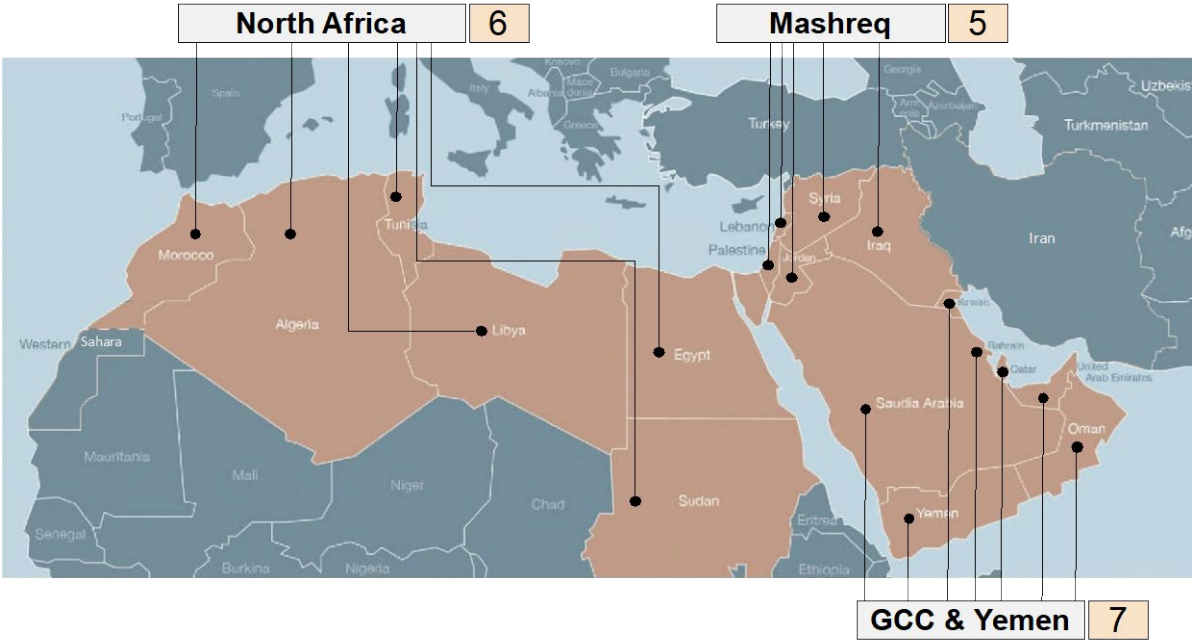


Figure 1: Map of the countries covered by the mapping study.

1.1. Objectives

The aim of the mapping study is to amass a comprehensive overview of the educational and training courses on subjects related to land governance offered in the Arab region.

The main objectives to be achieved are as follows:

- (1) Assess the quantity and thematic coverage of the available learning courses;
- (2) Identify the gaps and the opportunities for engaging with existing education and training institutions to complement the existing learning offer;

- (3) Generate recommendations for establishing more comprehensive curricula on land governance across the region.

1.2. Methodology

The methodology was developed by the Urban Training and Studies Institute (UTI) of the Housing and Building National Research Centre (HBRC) from Egypt, UN-Habitat and the Global Land Tool Network (GLTN), in collaboration with the experts, authors and editors involved in the preparation of the study. This paper presents information collected, analysed and validated by international, regional and national experts over the 2019–2022 period. The steps undertaken in the preparation of the mapping study are described below.

- **Conceptualization and call for proposals** - The study was conceptualized in 2019 and a call for proposals was launched to identify suitable regional partners that could lead the work. The Urban Training and Studies Institute (UTI/HBRC) from Egypt was awarded the contract.
- **Development of the methodology** - The methodology was developed by UTI/HBRC and UN-Habitat/GLTN based on the GLTN methodology for assessing the capacities of the land sector. The description of the land sector is adapted from the methodology developed by GLTN partners,¹ in which land management and land administration is articulated in four functions: land tenure, land value, land use and land development. Land disputes resolution, which appears as a component in each of the four functions, was researched and presented separately to simplify data collection and analysis. These land management and administration functions, underpinned by policies and legislations, land institutions and land information infrastructure, compose the land governance ecosystem. The functioning of the national land sectors of the was assessed against this analytical framework.
- **Mapping of the learning offer:** A methodology and supporting data collection tools were developed for the identification of educational and training courses on land governance – or aspects of land governance – and for the review of the curricula used. This mapping of the learning offer was conducted for 18 countries from the Arab region,² representing the three subregions: Mashreq, GCC and Yemen and North Africa (NA). Kuwait was included in this study via desktop research as the majority of universities have websites that present the curricula.

Table 1 shows the matrix designed by UTI/HBRC and GLTN to be used to collect the information needed for mapping the learning offer. In addition, information on the course curricula was collected from websites and via direct communication with the education institutes and experts.

¹ Ian Williamson, Stig Enemark, Jude Wallace and Abbas Rajabifard, “Land administration for sustainable development”, ESRI Press Academic, Redlands, California, 2010.

² Morocco, Algeria, Tunisia, Libya, Egypt, Sudan, Oman, Yemen, Saudi Arabia, United Arab Emirates, Bahrain, Qatar, Kuwait, Syria, Lebanon, Jordan, Palestine and Iraq.

Course Type	Organization	Type of Org.	Duration	Type of Course	Grade/Level	Certification	Funding	Payment
Mathematics/Statistics	Universities	Public	Days	Professional Learning	Short Course	Yes	Government	Yes
Geospatial studies/Survey/Mapping	Training Institutes	Private	Months	E-Learning	Diploma	No	Fees from students	No (it is free for users/students)
Spatial Planning/Land-Use Planning	Professional Bodies		Years	Academic	Undergraduate		Donors	
Agrarian/Rural studies	International Organizations			Project-specific	Master's		International organizations/institutions	
Social Sciences (land-related)	National civil society/NGOs			Continuous Professional Development	Doctorate			
Real Estate/Valuation/Taxation	Consultancy firms and private companies							
Economics/Finance/Business Administration	Government							
Project Management								
Public Administration (land-related)								
Legal/Justice								
Land Management								

Table 1: The information categorization matrix for the mapping of the learning offer

2. THE LEARNING OFFER IN MASHREQ COUNTRIES

This section presents the analysis of the learning offer in the Mashreq countries: Iraq, Jordan, Lebanon, Palestine and Syria. The learning offer in the subregion is mostly dedicated to spatial and land-use planning, followed by geospatial sciences. Little attention is paid to developing the capacities of the land sector in other fields. Virtually no expertise is being developed on land value and land disputes resolution. The very limited offer by training institutes and professional bodies results in limited options for continuous professional learning. The detailed analysis of the region is presented below, and further details on the courses for each country can be found in Annex 1.

The total number of identified courses is 74, with the analysis of the learning offer per subject showing that most courses fall under spatial planning and land-use planning programmes, followed by geospatial studies. Lebanon had the highest offer (24), while Syria the lowest (9).

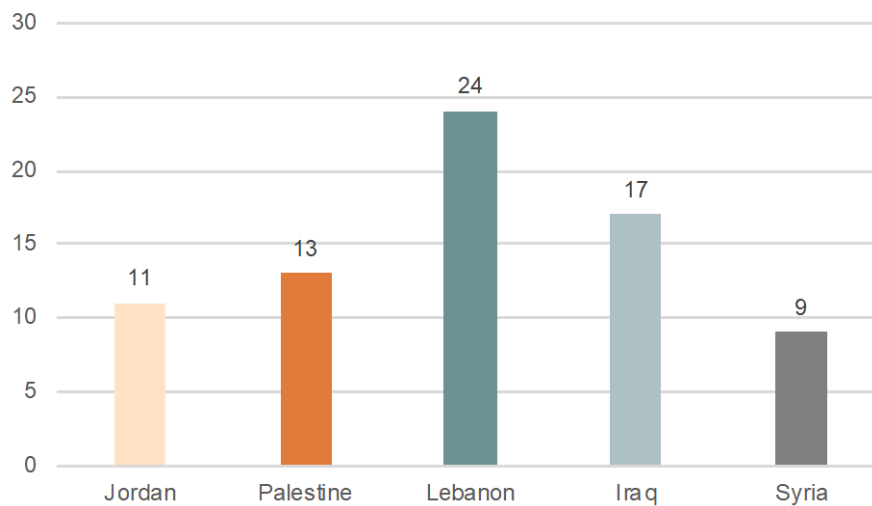


Figure 2: Number of courses offered in Mashreq, per country.

There is a scarcity or absence of land-related curricula on the following subjects: social science, public administration, agrarian/rural studies, real estate/valuation/taxation, and economics/finance/business administration.

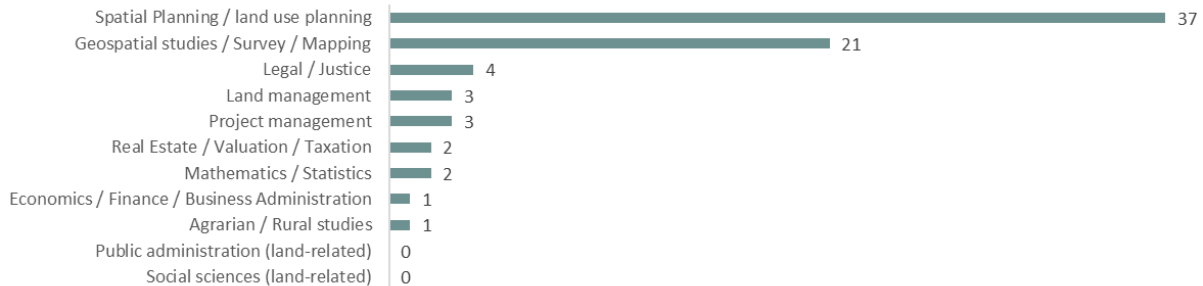


Figure 3: Number of courses in Mashreq, per course subject.

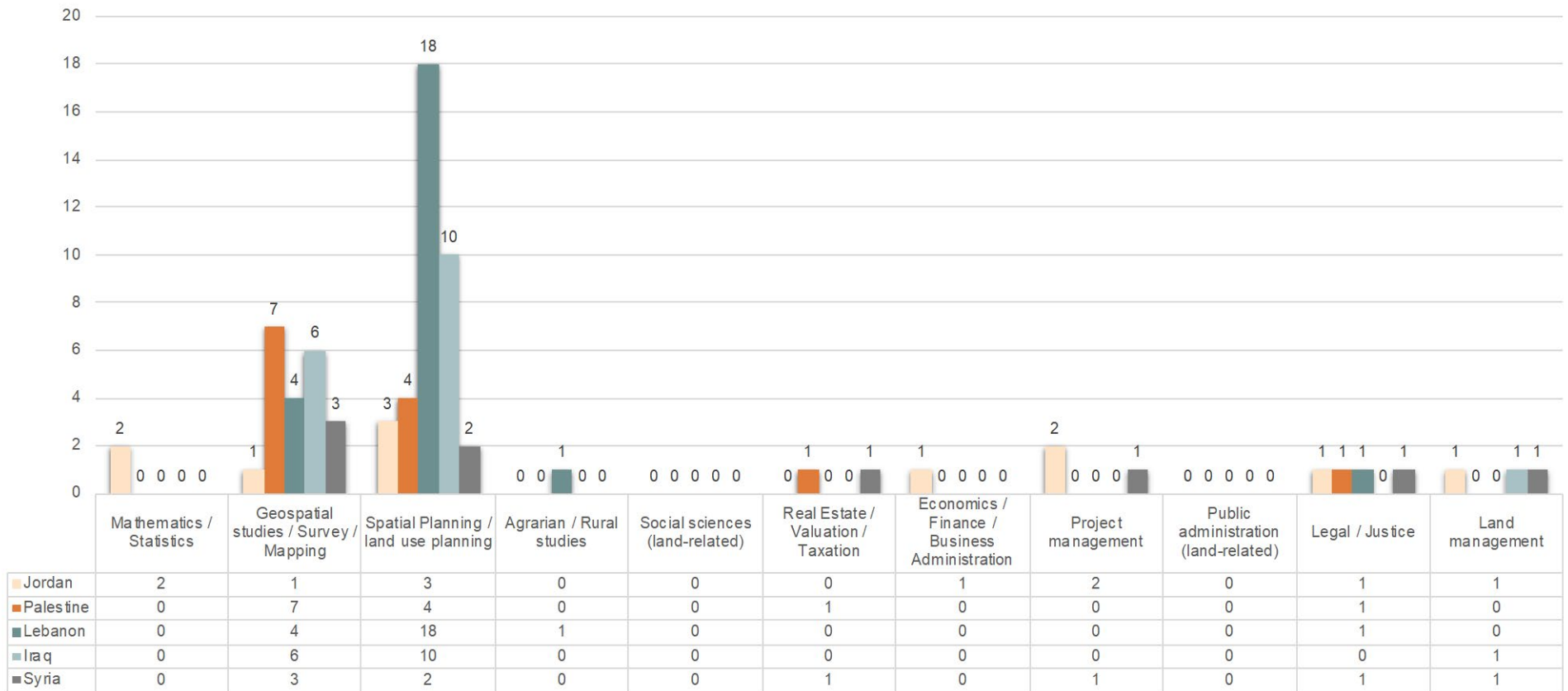


Figure 4: Breakdown of the learning offer in Mashreq, per country and course subject.

Analysis of the course providers: Universities are the main providers of learning in the Mashreq subregion. Courses provided by the government are only noted in Palestine. The public and private sectors play a major role in providing the learning offer in the Mashreq subregion.

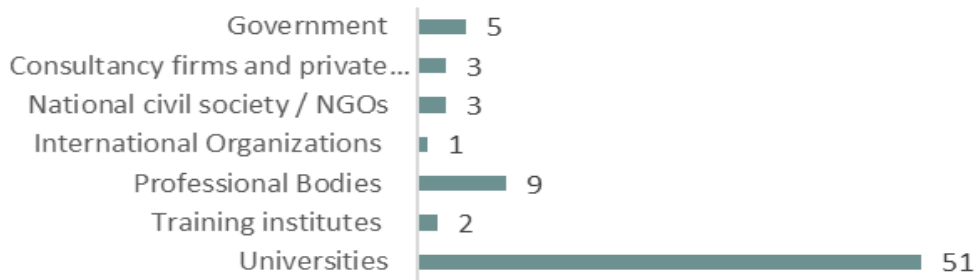


Figure 5: Type of course provider in Mashreq.



Figure 6: Public vs private course providers in Mashreq.

Duration and level: Most of the courses are academic that take 3 to 4 months (with a load of 2 to 3 credits per semester). No PhD-specialized programmes were identified. Most courses are delivered to undergraduates. Short training courses have a duration of maximum 5 days.



Figure 7: Duration of the learning offer in Mashreq.

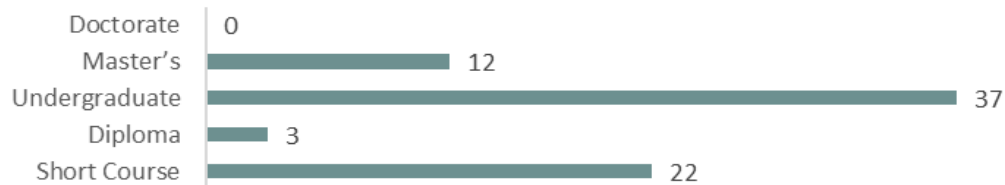


Figure 7: Academic level of the existing learning offer in Mashreq.

Type of courses and certification: There seems to be a lack of courses offered as continuous professional development. The project-based learning offer is mostly made up of short courses. The vast majority of courses, in total 66 courses (89.2 per cent), offer some kind of completion certificate.

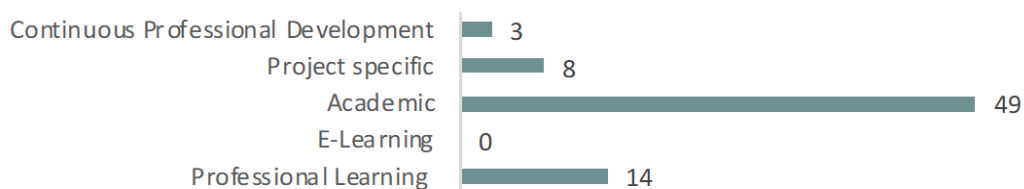


Figure 8: Type of learning offer in Mashreq.



Figure 9: Certification of the existing learning offer in Mashreq.

Fees and funding options: Most of the courses require payment and are funded by students' fees. Governments via public universities also provide free registration for the courses or support students with scholarships. Donors and international organizations funding opportunities for land-related courses (project-based) were identified in Palestine, Jordan, Lebanon and Iraq.



Figure 10: Education fees of the existing learning offer in Mashreq.

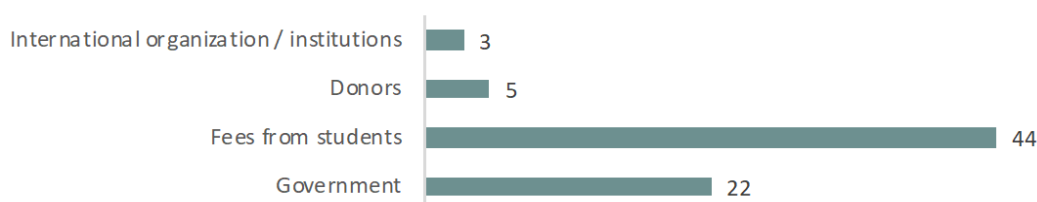


Figure 11: Funding of the existing learning offer in Mashreq.

Analysis by course subject in relation to the land administration functions: Usually, land use and land development are the functions that are covered and dominate the available learning offer, followed by land tenure, while land use and disputes resolution lag far behind.

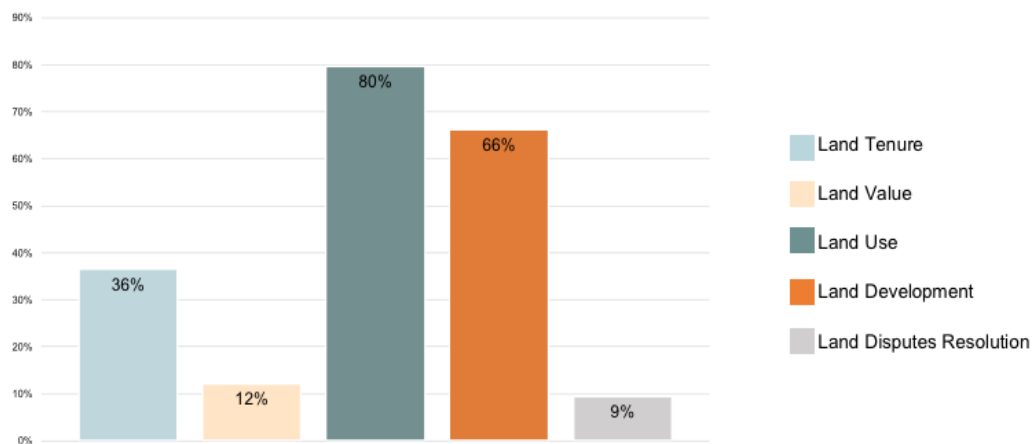


Figure 12: Analysis by course subject in relation to the Land Administration Functions in Mashreq.

	Land tenure	Land value	Land use	Land development	Land disputes resolution
Number of courses	27	9	59	49	7
Per cent of total (74 courses)	36%	12%	80%	66%	9%

Table 2: Representation of land administration function in the learning offer in Mashreq

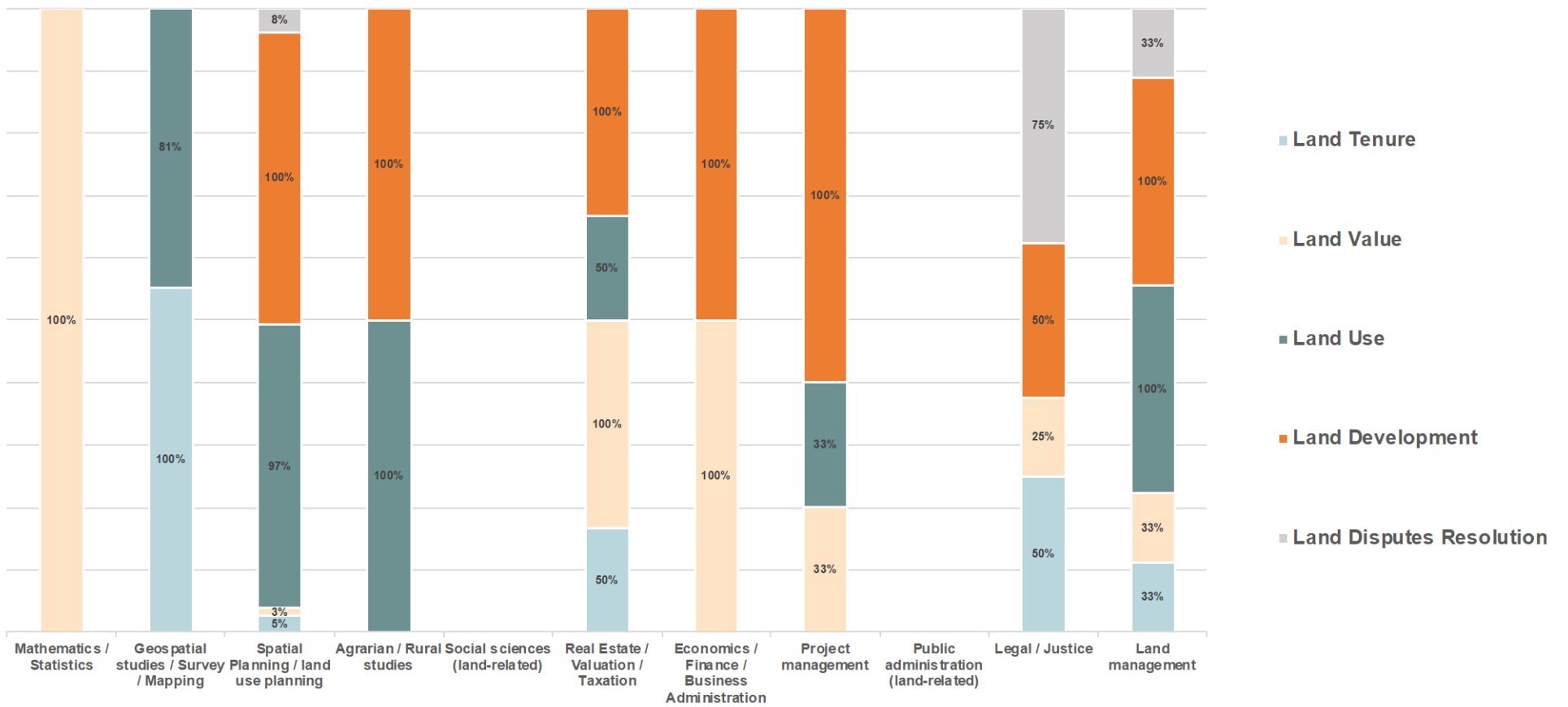


Figure 13: Distribution of land administration function according to course subject in Mashreq.

3. THE LEARNING OFFER IN GCC COUNTRIES AND YEMEN

This section presents the analysis of the learning offer in GCC and Yemen (Bahrain, KSA, Kuwait, Oman, Qatar, UAE and Yemen). The land-related learning offer is unevenly distributed in the region. Spatial and land-use planning are the most frequently taught disciplines, followed by real estate valuation and taxation, and finally by geospatial studies. The heavy focus on real estate valuation and taxation is unique for this subregion and was not noted elsewhere in the study area.

Another unique characteristic is the offer of many more short courses, compared to the other subregions, which are also better marketed and accessible online. The United Arab Emirates is a major provider of courses related to land, and their learning offer is easy to identify online. The figures that follow present the main findings and analysis, while further details on the courses in each country can be found in Annex 1, while the list of short courses is available in Annex 2. The total number of the identified learning offers in the GCC and Yemen subregion is 108.

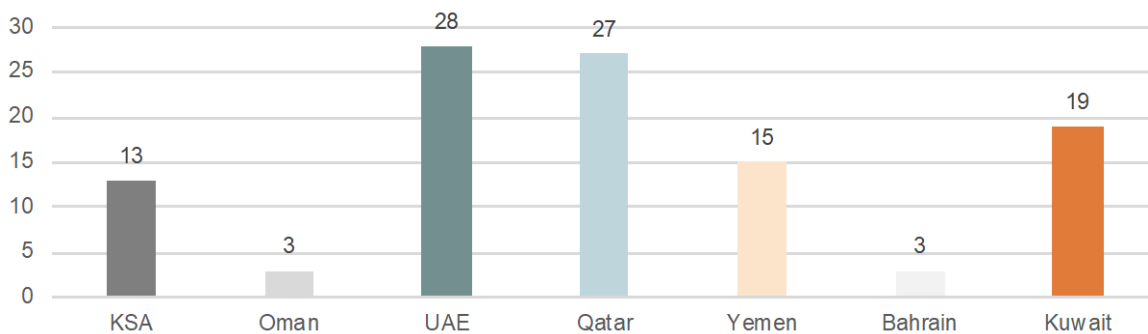


Figure 14: Number of courses offered in GCC and Yemen, per country.

Learning offer per course subject: The most taught disciplines by far are spatial planning and land-use planning, more than half of all courses. The next block trailing behind are geospatial studies (which is similar to the Mashreq subregion), and real estate valuation and taxation courses appear similar to geospatial studies, both at around 10 per cent each.

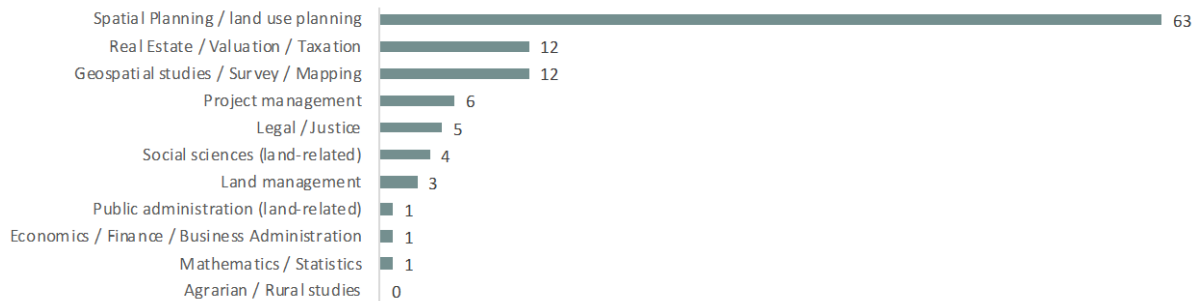


Figure 15: Number of courses in GCC and Yemen, per course subject.

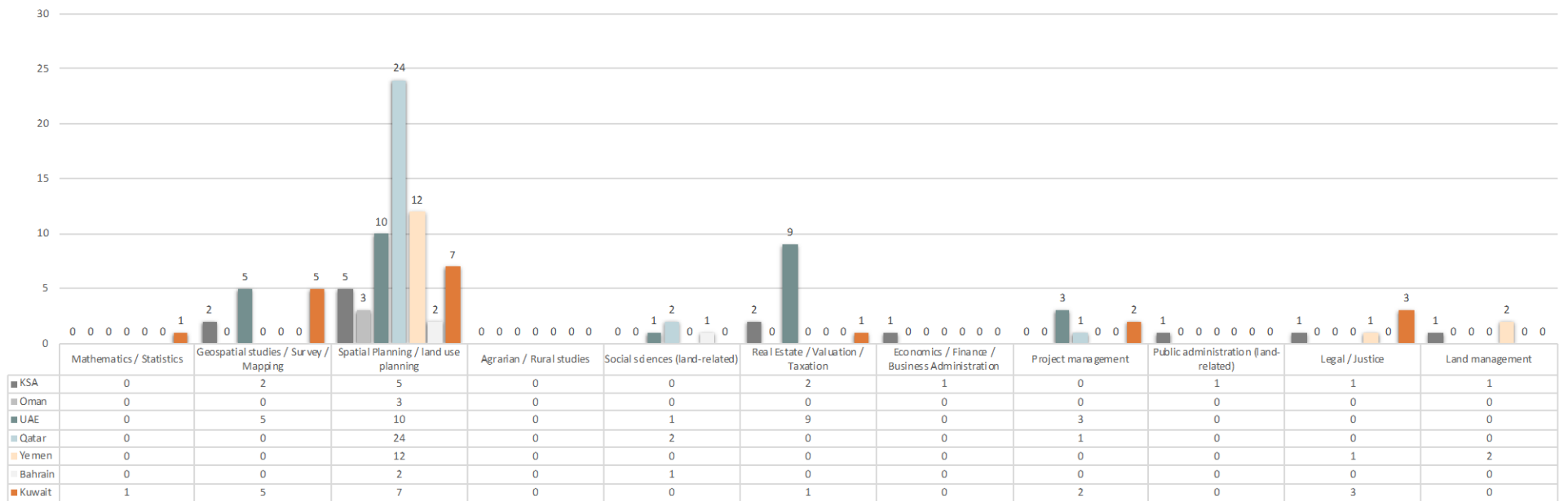


Figure 16: Breakdown of the learning offer in GCC and Yemen, per country and course subject.

Type of course provider: Universities are the main knowledge providers, followed by governments, particularly in Qatar (e.g., Ministry of Municipality and Environment) and UAE (e.g. Dubai Land Department).

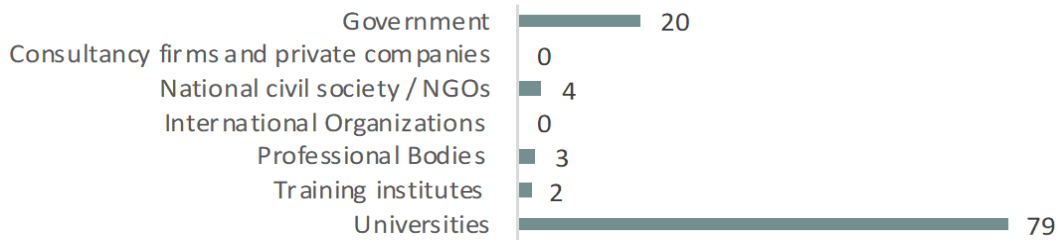


Figure 17: Type of course provider in GCC and Yemen.

Type of organization: While both the public and private sector plays a major role in land-related courses and trainings, in GCC and Yemen, the public sector has a clearly dominant position. It provides three-quarters of all courses, while the private sector is responsible for the remaining one-quarter.

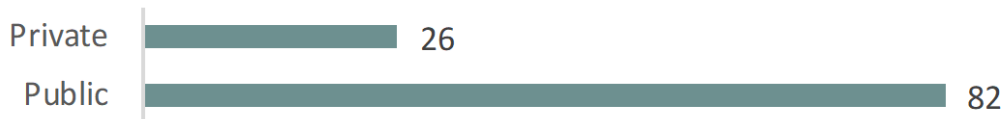


Figure 18: Public vs private course providers in GCC and Yemen.

Duration and grade of learning offer: Most of the courses are academic courses that take 3 to 4 months (with a load of 2 to 3 credits per semester). BSc, PhD and master’s programmes are identified in Qatar. Short courses are found in the Gulf states, provided by both public and private entities, including government authorities and universities in Qatar, Kuwait, UAE, KSA and Oman.

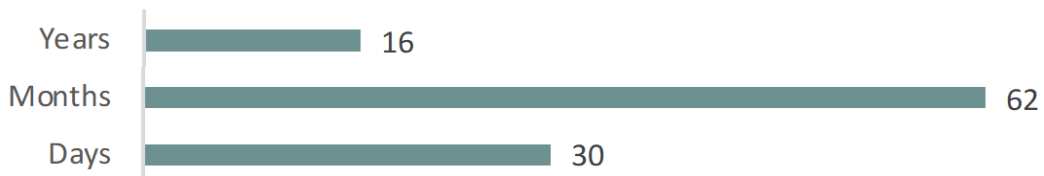


Figure 19: Duration of the learning offer in GCC and Yemen.

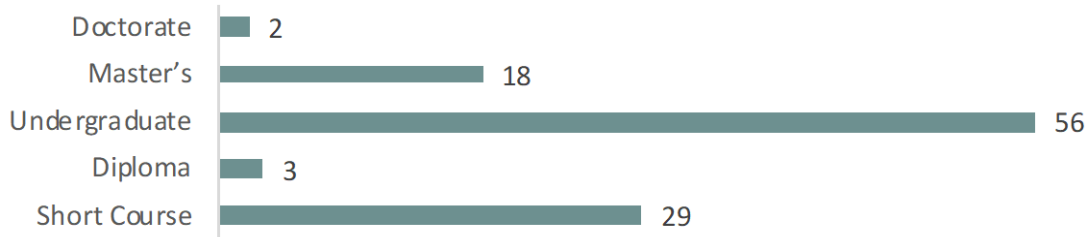


Figure 20. Academic level of the existing learning offer in GCC and Yemen.

Type of courses and certification availability for the existing learning offer: Most courses are academic. Some continuous professional development courses are identified in Qatar and UAE. All learning offers are certified.

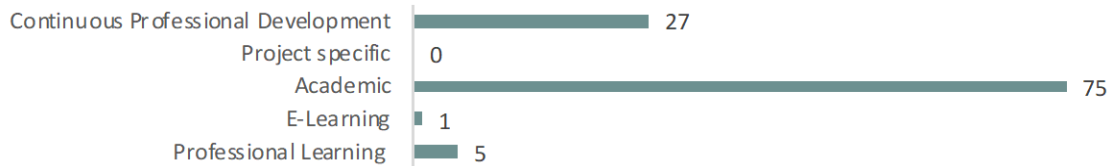


Figure 21: Type of learning offer in GCC and Yemen.



Figure 22: Certification of the existing learning offer in GCC and Yemen.

Fees and funding options: The majority of the courses require payment and are funded via students' fees and the government. Public universities also provide free registration for courses or support students with scholarships.

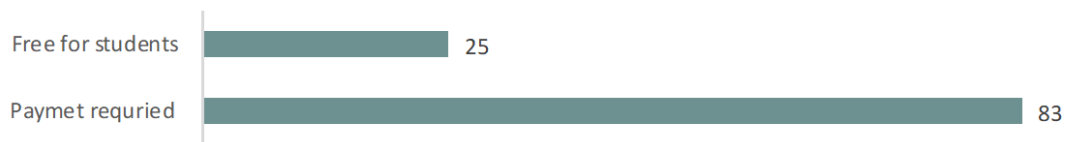


Figure 23: Education fees of the existing learning offer in GCC and Yemen.

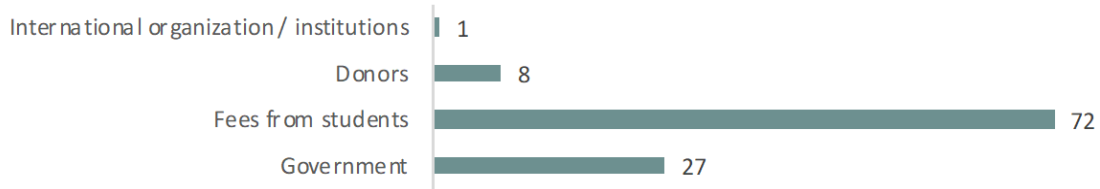


Figure 24: Funding of the existing learning offer in GCC and Yemen.

Analysis by course subject in relation to the land administration functions: Land use and land development are the land administration functions covered extensively in the available learning offer – upwards of three-quarters of courses. This follows the same trend as in the Mashreq countries.

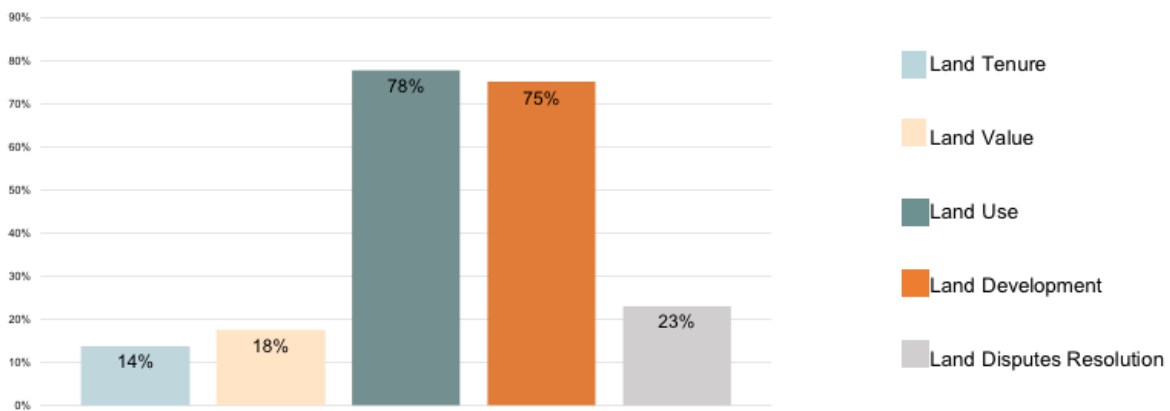


Figure 25: Analysis by course subject in relation to the land administration functions in GCC and Yemen.

	Land tenure	Land value	Land use	Land development	Land disputes resolution
Number of courses	15	19	84	81	25
Per cent of total (108 courses)	14%	18%	78%	75%	23%

Table 3: Representation of land administration function in the learning offer in GCC and Yemen

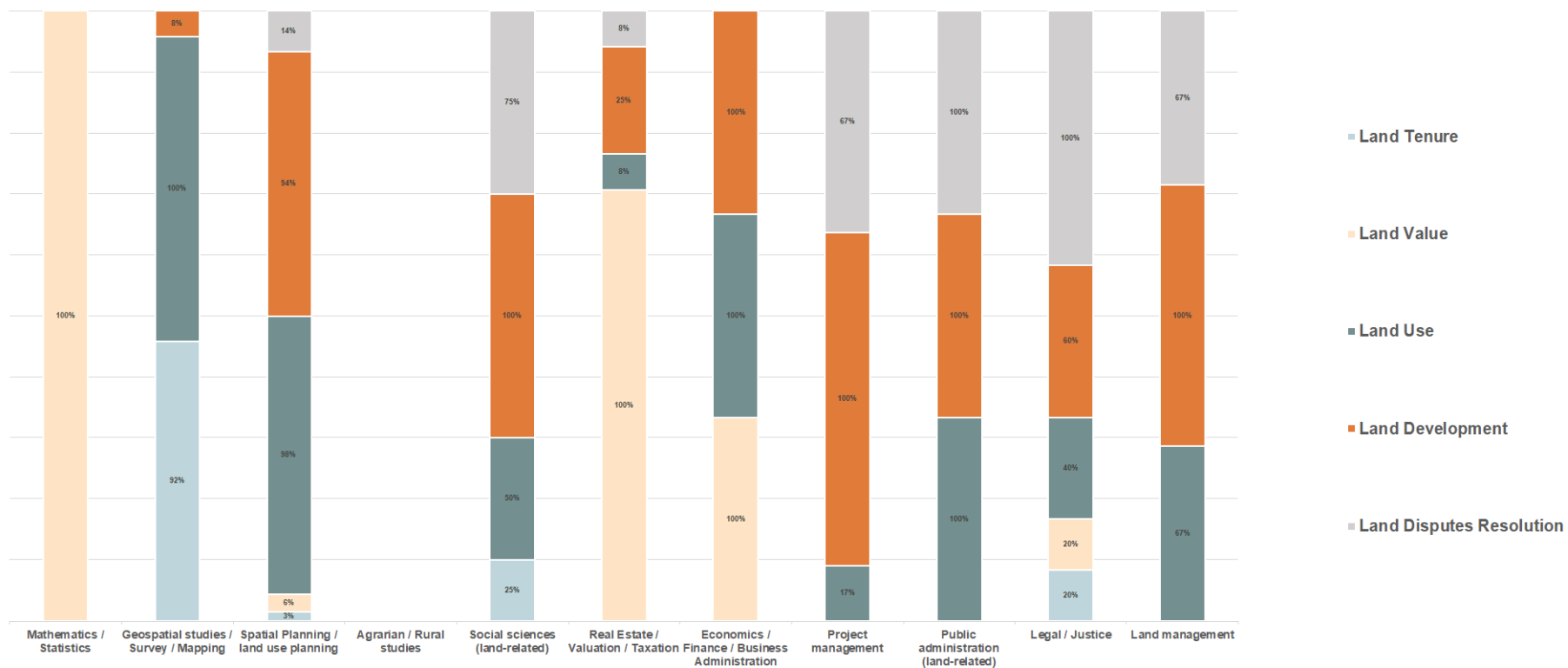


Figure 26: Distribution of land administration function according to course subject in GCC and Yemen.

4. THE LEARNING OFFER IN NORTH AFRICAN COUNTRIES

This section presents the analysis of the learning offer in North Africa: Algeria, Egypt, Libya, Morocco, Sudan and Tunisia. This subregion provides a rich and diverse offer of various educational and training courses. Spatial and land-use planning, followed by geospatial studies, are the most taught disciplines, similarly to other subregions. The relatively high number of courses on land-related legal and justice aspects is a distinctive feature of this subregion. Egypt is the leading provider, particularly for spatial and land-use planning. Libya plays a big role in geospatial studies. The detailed analysis is presented below and further details on the courses in each country can be found in Annex 1. The total number of the identified learning offers in the North Africa subregion is 186.

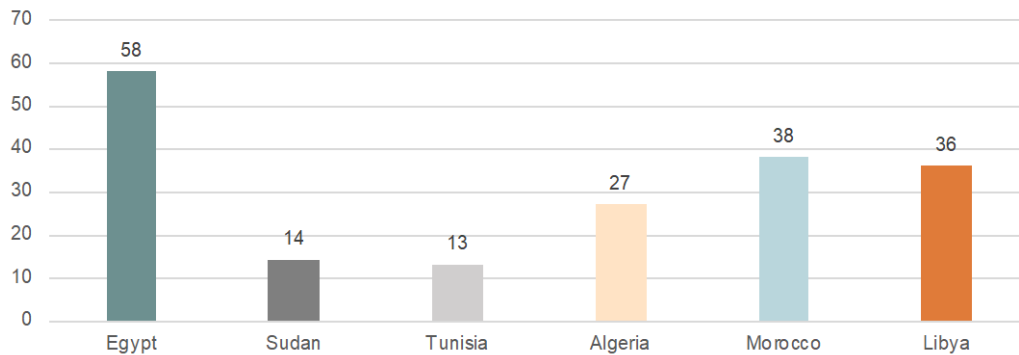


Figure 27: Number of courses offered in North Africa, per country.

Learning offer per course subject: The most frequently taught disciplines are spatial planning and land-use planning, followed closely by geospatial studies, accounting for approximately one-third each. The dominance of spatial planning is similar to the other subregions. The number of courses on land-related legal and justice is relatively high compared to elsewhere in the region.

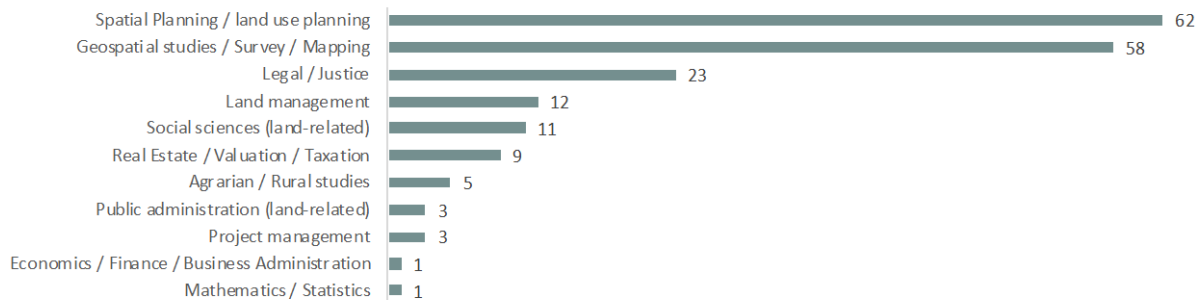


Figure 28: Number of courses in North Africa, per course subject.

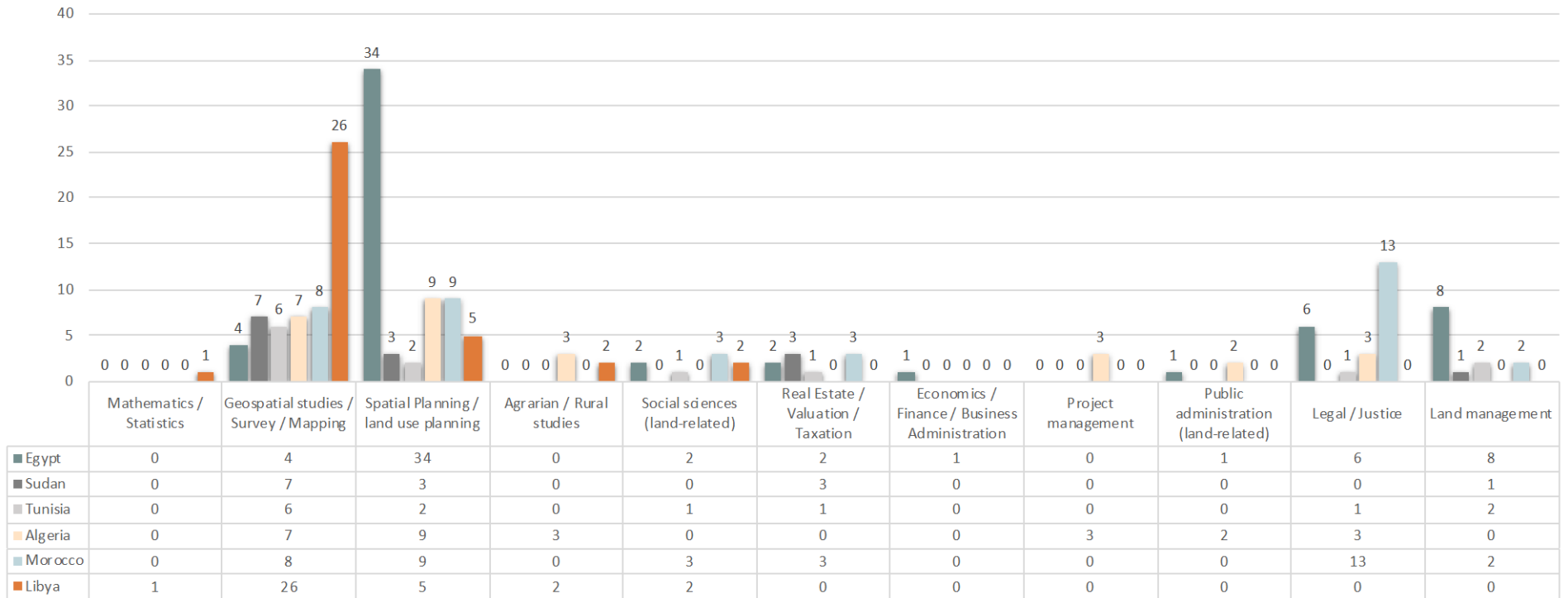


Figure 29: Breakdown of the learning offer in North Africa, per country and course subject.

Type of course provider: Universities are the main providers of the learning offer in North Africa. Public institutions provide three-quarters of courses, while private institutions only provide one-quarter. These findings closely mirror the picture in other subregions.

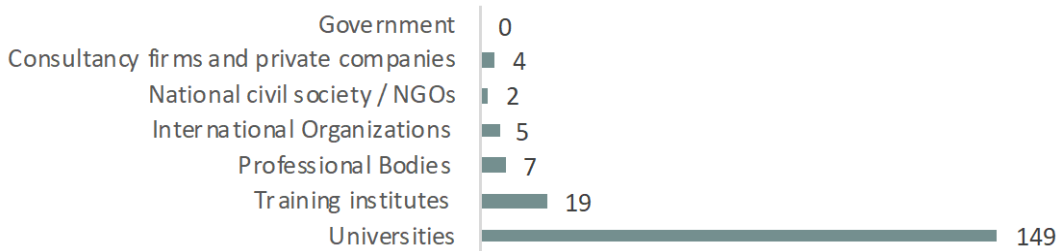


Figure 30: Type of course provider in North Africa.



Figure 31: Public vs private course providers in North Africa.

Duration and grade of learning offer: Most of the courses are provided (undergraduate, BSc and master’s degrees), with duration in terms of years, which implies a longer period of studying and more specialized content.



Figure 32: Duration of the learning offer in North Africa.

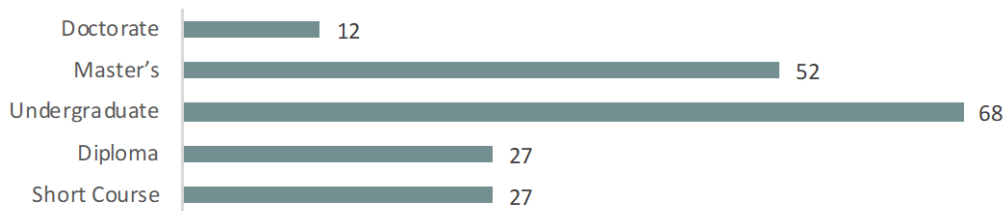


Figure 33: Academic level of the existing learning offer in North Africa.

Type of courses and certification: The learning offer is mostly made up of academic courses. Some professional learning, continuous professional development and project-specific courses also exist. Most courses offer a certificate (over 93 per cent).

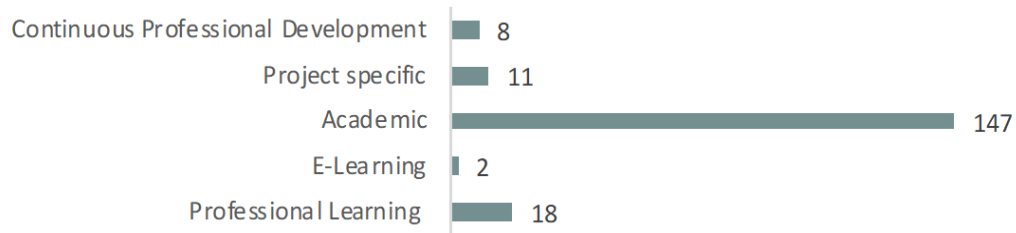


Figure 34: Type of learning offer in North Africa.



Figure 35: Certification of the existing learning offer in North Africa.

Fees and funding options: The majority of courses require payment. Funding comes from students' fees and the government. Some public universities are subsidized by the government to provide free registration for some courses or support students with scholarships. When this fund is not available, students have to fully finance their education.

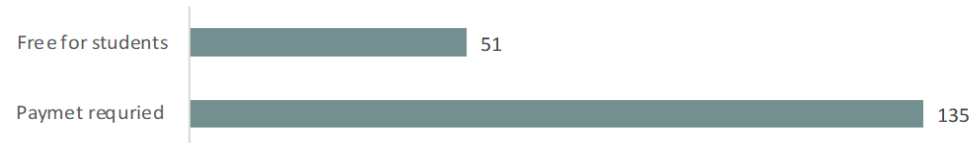


Figure 36: Education fees of the existing learning offer in North Africa.

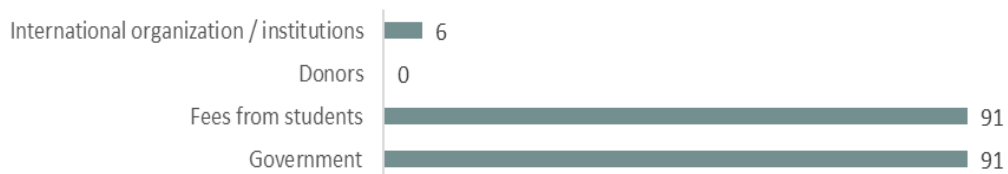


Figure 37: Funding of the existing learning offer in North Africa.

Analysis by course subject in relation to land administration function: Land use and land development are the land administration functions strongly covered by the available learning offer. This follows the same trend as in Mashreq and in GCC and Yemen.

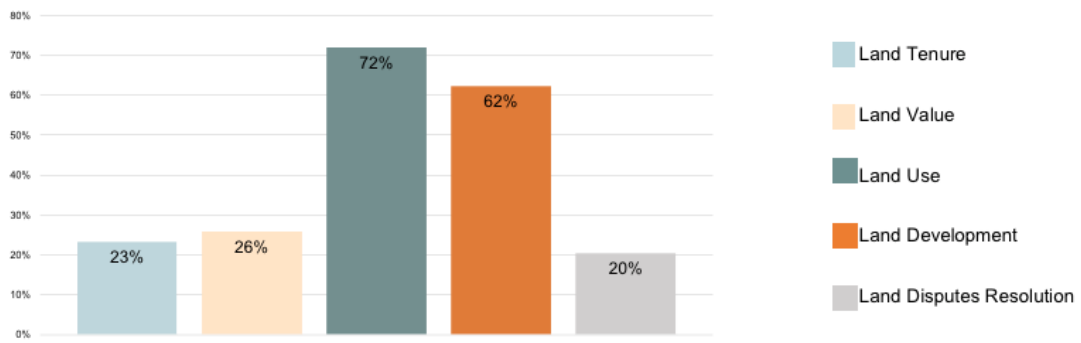


Figure 38: Analysis by course subject in relation to the land administration functions in North Africa.

	Land tenure	Land value	Land use	Land development	Land disputes resolution
Number of courses	43	48	134	116	38
Per cent of total (186 courses)	23%	26%	72%	62%	20%

Table 4: Representation of land administration function in the learning offer in North Africa

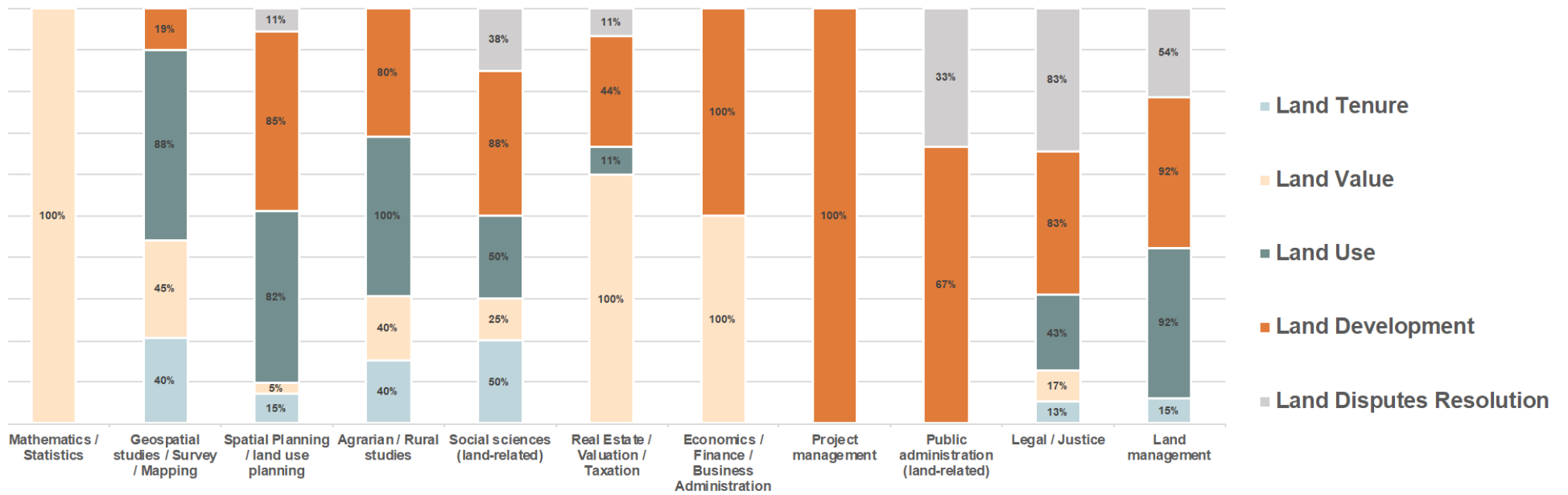


Figure 39: Distribution of land administration function according to course subject in North Africa.

5. THE THREE SUBREGIONS COMPARED

Quantity of the learning offer: Overall, land-related classes are well spread out across the three subregions, with North Africa playing a leading role. Some countries – such as Egypt, Morocco, Libya, UAE, Qatar and Lebanon – contribute significantly to developing land-related knowledge in the region. Although data were not collected on the number of students per course and their country of origin, it is estimated that some of these leading countries play (or used to play) an important regional role in capacity development, although this might have been affected by the current instabilities.

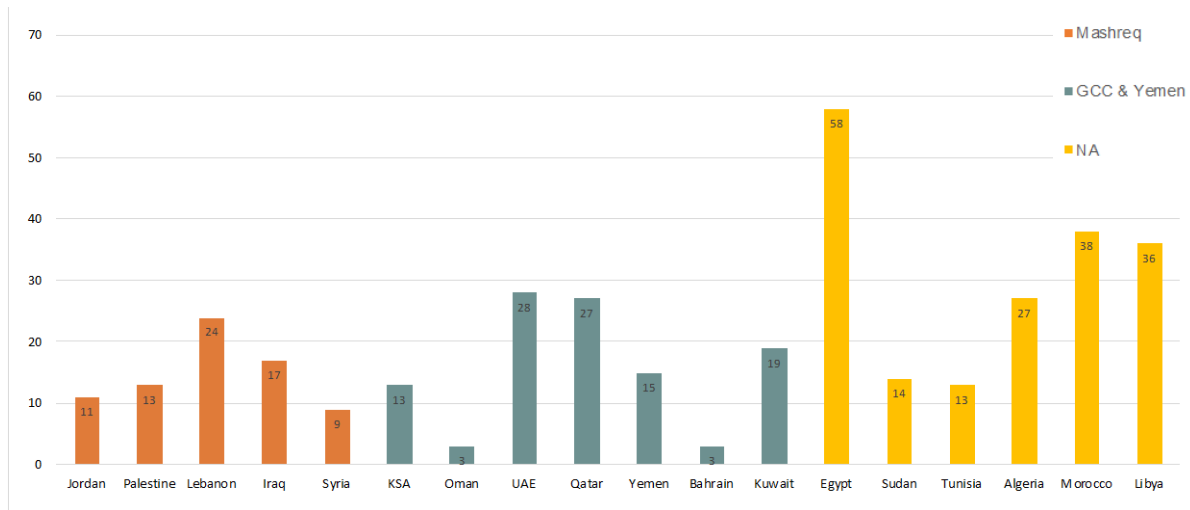


Figure 40: Number of offered courses per country (Mashreq, GCC and Yemen, and North Africa).

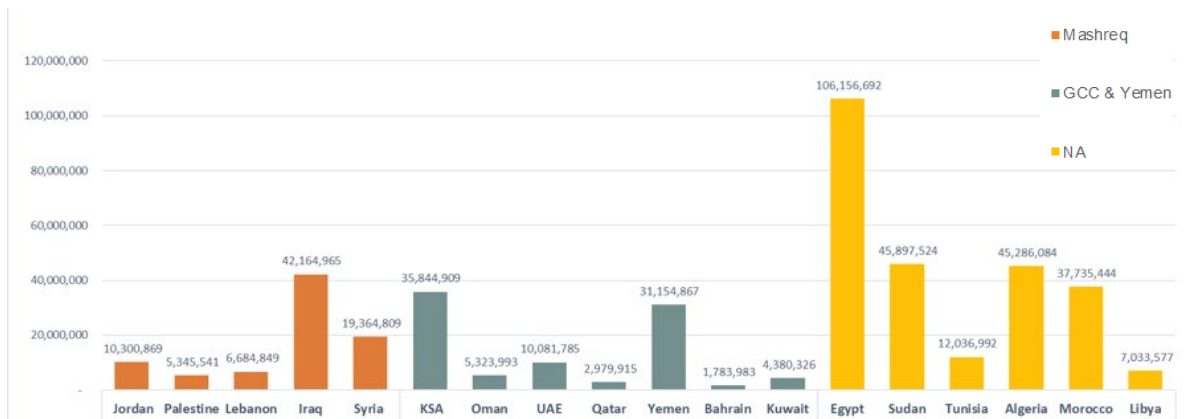


Figure 41: Total population in 2022 per country (Mashreq, GCC and Yemen, and North Africa).
Source: <https://worldpopulationreview.com>.

By comparing the total number of identified courses with the total population figures, it emerges that some countries that have higher populations usually tend to have more educational facilities and courses. For example, Egypt has the highest population and highest total number of identified learning offer. On the other hand, the populations in some countries are lower, which is correlated with the limited learning offer, for example, Bahrain and Oman.

The teaching per land administration function: Land use and land development are the most taught land administration functions in the three subregions. Land tenure, land value and land disputes resolution are taught much less. Most of the courses offered in Mashreq and North Africa are on spatial planning and land-use planning, followed by geospatial studies. The courses offered by the GCC countries and Yemen also focus on spatial and land-use planning, followed by geospatial studies; however, there is an additional focus on real estate valuation and taxation.

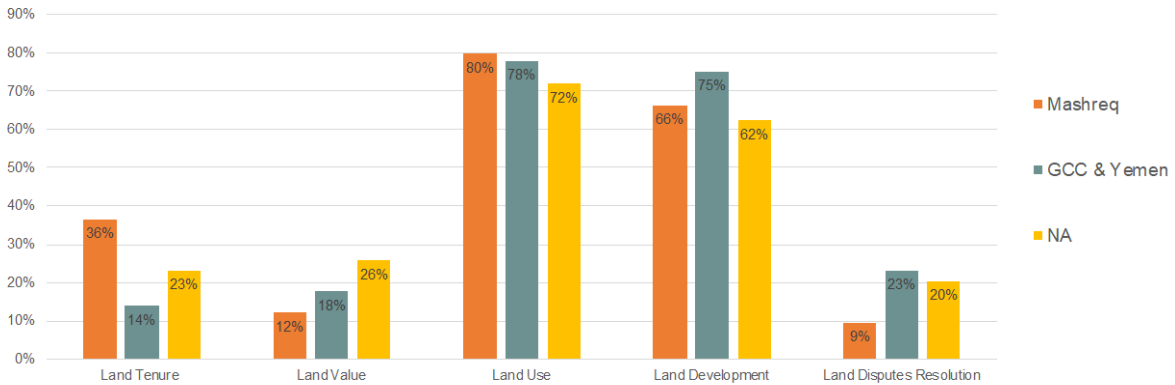


Figure 42: Comparing courses according to the land administration functions for the three subregions.

The providers of land-related knowledge: Overall, universities are overwhelmingly the main providers of land-related education in the Arab region. North Africa hosts a higher number of training institutes, international organizations and private companies that provide land-related courses compared to the other two subregions. Government authorities in the Gulf countries (specifically Qatar and UAE) offer the most training courses compared to the other two subregions. Mashreq countries have the highest number of professional bodies, closely followed by North Africa.

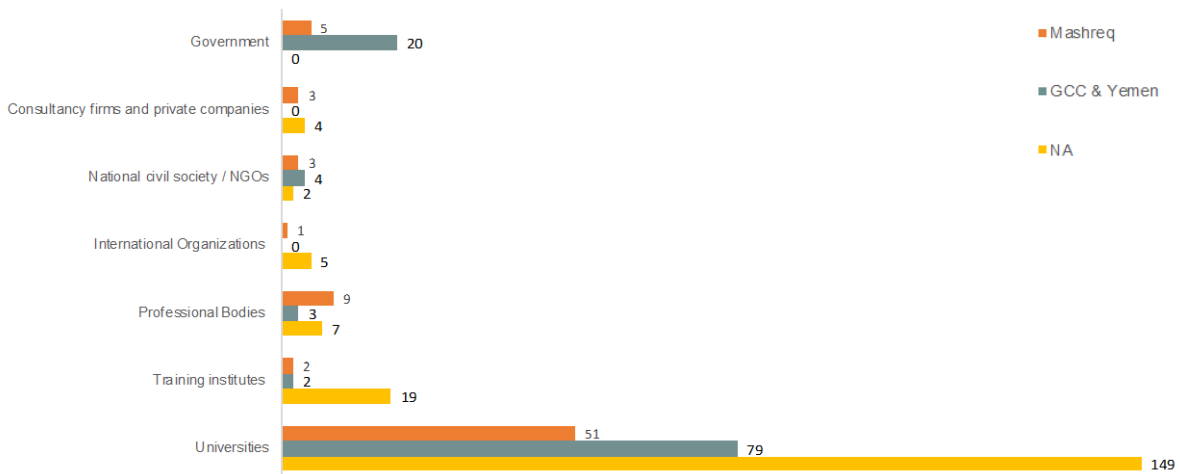


Figure 43: Comparing type of course provider between Mashreq, GCC and Yemen, and North Africa.

The leading role of the public sector: The public sector is the leading provider of land-related education. The private sector – in particular, private universities – plays an important role in offering land-related courses in the region.

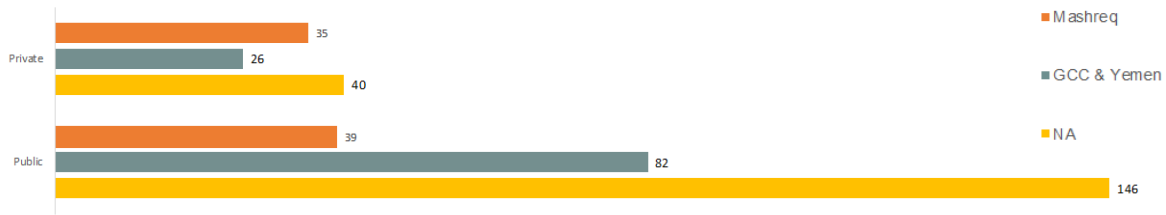


Figure 44: Comparing private and public providers between Mashreq, GCC and Yemen, and North Africa.

Duration of the courses: There are different trends regarding the duration of courses in the three subregions. Courses that last several years dominate the land curricula. North Africa is the largest provider of long courses, such as bachelor’s, master’s or PhD programmes. The courses offered in GCC and Yemen are shorter and taught either over days or months.

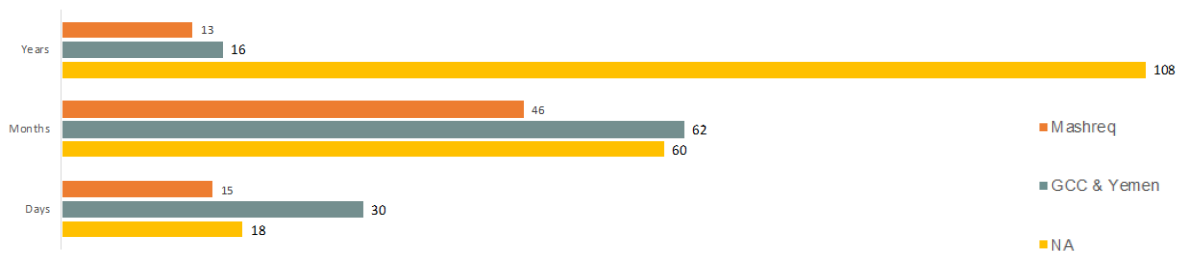


Figure 45: Comparing duration of the learning offer between Mashreq, GCC and Yemen, North Africa.

Type of provided courses: GCC and Yemen are the largest providers of continuing professional development courses, probably motivated by the importance that real estate plays as a leading sector of the economy. North African countries are the largest provider of academic, professional learning and project-specific courses.

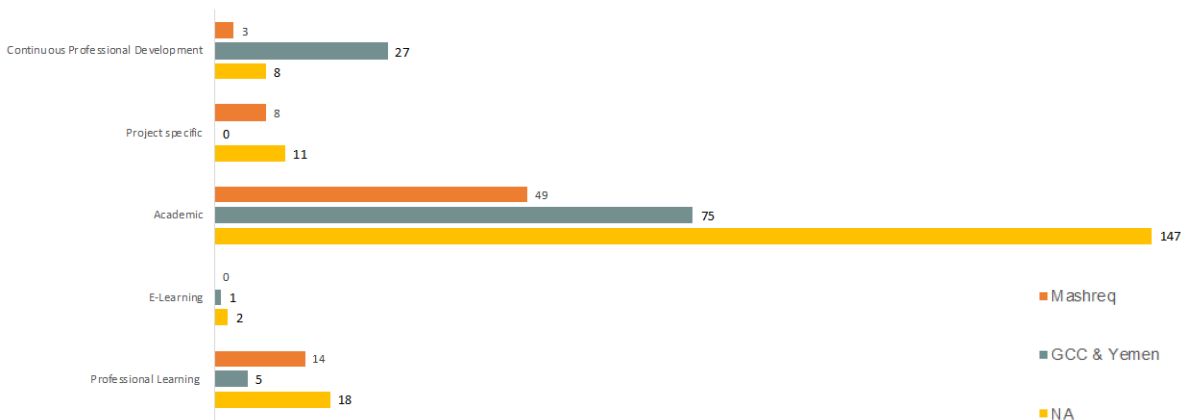


Figure 46: Comparing type of learning offer between Mashreq, GCC and Yemen, and North Africa.

Mostly undergraduate studies: The Arab region mostly teaches land-related content at the undergraduate level. Limited graduate studies are available in North Africa, GCC and Yemen, and the region relies on international courses for such specialized learning. This situation makes the advanced learning offer expensive, largely inaccessible, and inefficient for the purpose of retaining land governance capacities in the region. Some special diplomas and short courses are also available, particularly in North Africa.

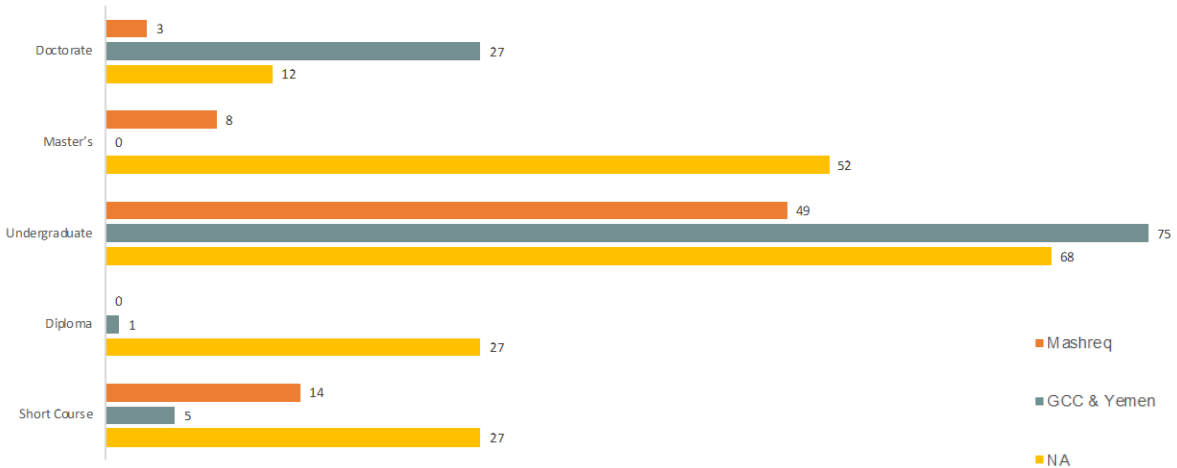


Figure 47: Comparing the academic level of the learning offer between Mashreq, GCC and Yemen, and North Africa.

Financing: The cost of the fees is mostly borne by students and governments. In North Africa, the courses are split evenly between government and student financing. In the other two regions, students are substantially more responsible for covering the education cost.

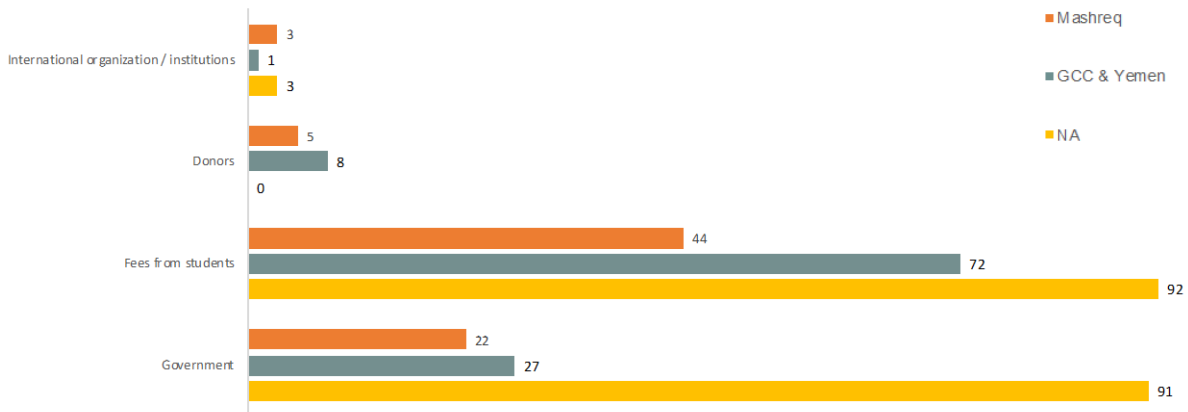


Figure 48: Comparing funding sources of the learning offer between Mashreq, GCC and Yemen, and North Africa.

6. CONCLUSION

Mapping the existing learning offer has revealed the trends of the land education offer in the Arab region. It captured the gaps and opportunities that can be taken forward to improve capacity-building processes in the field of land governance in the region. The study revealed fragmented knowledge in the field of land education. The available curricula focus on spatial and land-use planning, which mainly tackle the land administration functions of land use and land development. In addition, there is a lack of relevant curricula on land tenure, land value and land disputes resolution. The result is a fragile basic and a lack of comprehensive knowledge of land administration concepts and responsive land governance mechanisms.

Furthermore, land topics are mainly offered for academic purposes and mainly at the undergraduate level. Some limited post-graduate studies are available in North Africa, GCC and Yemen. The current strategy in the region is to rely on international offers and expertise as a substitute for the weak domestic offer and knowledge. Nevertheless, this option is more expensive, largely inaccessible and inefficient for the purpose of retaining land governance capacities in the region.

Looking at education and training providers, the region lacks input from training institutes and professional bodies, leading to a deficiency in providing professional learning that builds capacities that are closely aligned with practice and not primarily focused on academics. Thus, the diversification of learning offer providers and knowledge suppliers is undoubtedly a necessity to ensure the richness and depth of course content. Moreover, as land is a geopolitical topic in the region, government support plays a major role, for example, through financial support or the direct provision of education and training by government entities. This situation was noted in the case of Palestine, UAE and Qatar, where government deliver short-term courses to professionals specialized in land-related topics.

The findings highlight several interventions to improve land curricula in the Arab region:

- It is important to ensure knowledge supply through relevant curricula as a way to build capacities in the region. Introducing specialized land management and governance programmes at the undergraduate level is an important step to building young capacities and ensuring that land governance topics are mainstream in universities and educational facilities. This will help prepare experts who can be hired by the concerned authorities to manage land on local, national and regional levels.
- Preparing short courses is a tool to build capacities rapidly since they provide trainees with precise, concentrated knowledge of specific expertise in a limited time.
- Professional courses for existing practitioners who demonstrate potential can be a way forward to build on their experience towards more consolidated and polished skills.
- The multidimensional nature of the topic of land in the provided curricula (i.e., social sciences, law, agrarian studies, statistics, public administration, etc.) can widen the spectrum of both providers and students.

Overall, it is important to ensure an adequate knowledge supply through relevant curricula, which need to match the real needs of the local, national and regional job market. The spectrum of land curricula needs to be expanded beyond spatial planning and physical management of this precious commodity “land”. The unique socioeconomic, political, fiscal and administrative dimensions of the region need to be covered and delivered by educational facilities to sustainably enhance local capacities. Such a tailored effort would create a solid professional body versed in basic concepts as well as in-depth knowledge.

ANNEXES

Annex 1: List of Land-Related Courses in Mashreq Countries

Courses in Iraq

1	Digital processing of satellite visuals (University of Mosul)
2	The use of GIS software in spatial analysis (University of Mosul and Remote Sensing Center, Mosul)
3	Fundamentals of digital education (University of Mosul and Remote Sensing Center, Mosul)
4	Classification of floor coverings in GIS software (University of Mosul)
5	GIS 1 (studio plan preparation and GIS skills 1) (University of Baghdad, the Urban and Regional Planning Center)
6	GIS applications (ESRI)
7	Theories of land-use planning and environmental management (University of Duhok)
8	Principle of planning (Nawroz University)
9	Method of land use (University of Baghdad, the Urban and Regional Planning Center)
10	Introduction to urban and regional planning (University of Baghdad, the Urban and Regional Planning Center)
11	Fundamentals of urban and regional planning (University of Baghdad, the Urban and Regional Planning Center)
12	Urban planning theories and models (Kufa University)
13	Urban management (Kufa University)
14	Principle of planning (Sulaimani Polytechnic University)
15	Urban management (Sulaimani Polytechnic University)
16	Theories of urban planning (Sulaimani Polytechnic University)
17	Land tenure and land management (University of Duhok)

Courses in Jordan

1	Mathematical statistics
2	Mathematical statistics
3	Using ArcGIS for mining geoscience workflows
4	Spatial socioeconomic development planning
5	Environmental design
6	Housing
7	Public finance and taxation
8	Feasibility study
9	Strategic management
10	Monitoring land governance and land tenure security in the Arab region (Middle East subregion)
11	Building regulations and professional practice

Courses in Lebanon

1	GIS (Beirut Arab University – BAU)
2	GIS (USEK-Architecture)
3	GIS (ESRI)

4	Development of GIS database (Beirut Built Environment Database) (Urban Lab, American University in Beirut – AUB)
5	Master of urban planning and policy (American University in Beirut – AUB)
6	Master of urban design (American University in Beirut – AUB)
7	Urbanism 1 (Notre Dame University)
8	Urbanism 2 (Notre Dame University)
9	Urban and city planning (AZM University)
10	Principles of sustainable urban development (AZM University)
11	Cities, planning and urban life (AZM University)
12	City and town planning (Beirut Arab University – BAU)
13	Theory of housing (Beirut Arab University – BAU)
14	Urbanism (Lebanese University)
15	Landscaping (Lebanese University)
16	Urbanism I (USEK-Architecture)
17	Urbanism II (USEK-Architecture)
18	City landscape and territory workshop (USEK-Architecture)
19	Urban planning I (Lebanese American University – LAU)
20	Urban planning II (Lebanese American University – LAU)
21	Regional urbanism (Lebanese American University – LAU)
22	Spatial planning courses and workshops (Syndicate for Urban Planners)
23	Bachelor of landscape architecture (American University in Beirut – AUB)
24	Courses and workshops (Public Works)

Courses in Palestine

1	Geography and urban studies (Al-Quds University)
2	Geography and regional planning (Al-Quds University)
3	Geospatial studies (Al-Najah University)
4	Surveying and geomatics engineering (Palestine Polytechnic University)
5	Applied geography (Hebron University)
6	Training GeoMOLG system (Ministry of Local Government)
7	GIS short course (Land and Water Settlement Authority)
8	Urban planning engineering (Al-Najah University)
9	Urban and regional planning (Al-Najah University)
10	GIS for land-use development (the Applied Research Institute – Jerusalem ARIJ)
11	Strategic development and investment planning (SDIP) (GIZ)
12	Training workshop on global real estate appraisal systems
13	Laws of the Anti-Corruption Commission for employees of the Land Authority

Courses in Syria

1	GIS beginners/advanced (Training and Qualifying Center, Order of Syrian Engineers and Architects, Damascus Branch)
2	GIS remote sensing satellite images analysis (General Organization of Remote Sensing – GORS)
3	Database, GIS applications, web applications, information management, GPS and spatial applications tools (General Organization of Remote Sensing – GORS; Syrian Computer Society – SCS)

4	Structural planning (Training and Qualifying Center, Order of Syrian Engineers and Architects, Damascus Branch)
5	Civil Architecture, Specialized engineering programmes (Hamad bin Khalifa University, Training and Qualifying Center, Order of Syrian Engineers and Architects, Damascus Branch)
6	Real estate valuation (Training and Qualifying Center, Order of Syrian Engineers and Architects, Damascus Branch)
7	PMP (Training and Qualifying Center, Order of Syrian Engineers and Architects, Damascus Branch)
8	Laws of land management (Training and Qualifying Center, Order of Syrian Engineers and Architects, Damascus Branch)
9	Land management (Training and Qualifying Center, Order of Syrian Engineers and Architects, Damascus Branch)

Annex 2: List of Courses in GCC Countries and Yemen

Courses in Bahrain

1	Urban studies
2	Urban environment system
3	Social behaviour and the built environment

Courses in Saudi Arabia

1	Surveying
2	Surveying for architects
3	Learning new methods of planning
4	Land use
5	Introduction of city planning
6	History and theories of urban planning
7	Urban planning studio
8	Land expropriation
9	Real estate financing
10	Housing theories and economics
11	Planning law and administration
12	Urban systems and regulations
13	Urban land development

Courses in Kuwait

1	Statistics research project (Kuwait University)
2	Applications in GIS (Kuwait University)
3	GIS applications (Sabah Salem University, Kuwait GIS User Group – NA)
4	GIS applications (Kuwait University – Open-ware)
5	Remote sensing (Kuwait University – Open-ware)
6	Advanced information systems project on Kuwait (Kuwait University – Open-ware)
7	BS in architecture (Kuwait University)
8	BS in architecture (American University of the Middle East)
9	Urban planning and land use (Kuwait University)
10	Urban services planning and decision-making institutions (Kuwait University)
11	Urban and regional planning (Kuwait University)
12	Environmental and global issues (Kuwait University)
13	Urban planning and its forms (Kuwait University)
14	Law and financial operations, tax systems and the Kuwaiti tax system (Kuwait International Law School)
15	Strategic management (Kuwait University)
16	Project management (American University of the Middle East)
17	Kuwait government and politics (Kuwait University)
18	The constitutional system in Kuwait (Kuwait University)
19	Legal culture (Kuwait University)

Courses in Oman

1	Urban planning and architectural design (German University of Technology in Oman)
2	BSc (hons) urban and regional planning (Global College of Engineering and Technology)
3	Urban regional planning (Sultan Qaboos University)

Courses in Qatar

1	Urban planning legislation (Qatar University)
2	Urban and planning land use (Qatar University)
3	Urban economics (Qatar University)
4	Housing policies and planning (Qatar University)
5	Urban economics (Qatar University)
6	Housing policies and planning (Qatar University)
7	Intro to theory and practice of urban planning (Qatar University)
8	Transportation and transit-oriented development (Qatar University)
9	Urban and regional economics (Qatar University)
10	Urban planning and development (Qatar University)
11	Housing and community development (Qatar University)
12	Transit-oriented development (TOD) (Ministry of Municipality and Environment)
13	Knowledge-based urban development (Ministry of Municipality and Environment)
14	Urban design and planning approaches to deal with heritage areas in Qatar (Ministry of Municipality and Environment)
15	Urban centres: concept and planning in contemporary cities (Ministry of Municipality and Environment)
16	Commercial streets: concept and planning in contemporary cities (Ministry of Municipality and Environment)
17	Design and planning of residential neighbourhoods for Qatari families (Ministry of Municipality and Environment)
18	Urban design and planning approaches to deal with coastal areas in Qatar (Ministry of Municipality and Environment)
19	Geographical Information Center (Ministry of Municipality and Environment)
20	Sustainable urbanism and environmentally conscious design (Qatar Green Building Council)
21	Bioclimatic design in hot climates (Qatar Green Building Council)
22	Green transportation (Gulf Organization for Research and Development)
23	Urban connectivity introduction (Gulf Organization for Research and Development)
24	Urban considerations (Gulf Organization for Research and Development)
25	Contemporary cities for Muslim societies (Hamad Bin Khalifa University)
26	Globalization, cities and urban policies (Hamad Bin Khalifa University)
27	Project Management Professional (Society of Qatari Engineers)

Courses in the UAE

1	Environmental geography concentration (UAE University)
2	Geoinformatics concentration (UAE University)
3	Urban planning concentration (UAE University)
4	Urban geography (Université Paris-Sorbonne, Abou Dhabi)
5	Environment: dynamics of territories and societies (Université Paris-Sorbonne, Abou Dhabi)

6	Urban planning and infrastructure (UAE University)
7	Urban planning (University of Ajman)
8	Urban planning (American University of Ras Al-Khaimah)
9	Urban planning and development (Université Paris-Sorbonne, Abou Dhabi)
10	BS Architecture (Canadian University of Dubai)
11	Environmental and land-use planning (American University of Sharjah)
12	MSc sustainable critical infrastructure (Khalifa University)
13	Principles of environmental sustainability (Zayed University)
14	BS architectural engineering (University of Sharjah)
15	BS architecture (American University in Dubai)
16	Cities: culture, space, sustainability (Zayed University)
17	Certified training for real estate brokers (Dubai Land Department)
18	Registration trustee training (Dubai Land Department)
19	Certified course for real estate valuer (Dubai Land Department)
20	Accredited buyer representative – ABR (Dubai Land Department)
21	Certified diploma in real estate (Dubai Land Department)
22	Certified property management – CPM (Dubai Land Department)
23	Certified mortgage broker – CMB (Dubai Land Department)
24	Certified international property specialist – CIPS (Dubai Land Department)
25	Certified real estate brokerage manager – CRB (Dubai Land Department)
26	Owners association management programme – M100 (Dubai Land Department)
27	Owners association facility management programme – M201 (Dubai Land Department)
28	Risk management training for owner association managers – M205 (Dubai Land Department)

Courses in Yemen

1	Urban design studio (Sana'a University)
2	City planning (2) and (3) (Sana'a University)
3	Advanced city planning (Sana'a University)
4	Advanced urban design (Sana'a University)
5	Urban design studio (Thamar University)
6	City planning (2) and (3) (Thamar University)
7	Urban design studio (University of Science and Technology)
8	City planning (2) (University of Science and Technology)
9	Urban design studio (International University of Technology Twintech)
10	City planning (2) (International University of Technology Twintech)
11	Urban design studio (Yemenia University)
12	City planning (2) (Yemenia University)
13	Public law and commercial law (Sana'a University)
14	Building legislation (Sana'a University)
15	Building legislation (Thamar University)

Annex 3: List of Courses in North African Countries

Courses in Algeria

1	Statistics and data analysis (Djilali Bounaama University)
2	Topography (Djilali Bounaama University)
3	Geo-technology (Djilali Bounaama University)
4	Geomorphology and environmental protection geomatics (University of Science and Technology Houari Boumediene)
5	Master geomorphology (University of Science and Technology Houari Boumediene)
6	Applied geology – Geotechnical (University of Science and Technology Houari Boumediene)
7	Geodesy and cartography (University of Science and Technology Houari Boumediene)
8	Architecture, urbanism and city trades (Algiers 1 University)
9	Architecture, urbanism and city trades (Algiers 1 University)
10	Architecture and urban project (Algiers 1 University)
11	Urban planning and environmental protection (University of Science and Technology Houari Boumediene)
12	Regional planning and sustainable development (University of Science and Technology Houari Boumediene)
13	Regional planning master’s degree (University of Science and Technology Houari Boumediene)
14	Architecture and urbanism sciences (Polytechnic School of Architecture and Urbanism Engineering)
15	Urban planning (University of Science and Technology Houari Boumediene)
16	Cities, spatial dynamics and management (University of Science and Technology Houari Boumediene)
17	Agronomy (University of Laghouat)
18	Agronomy (University of Laghouat)
19	Rural planning and sustainable development (University of Science and Technology Houari Boumediene)
20	PMP certification training (Unichrone Training Center)
21	Sustainable development engineering (University of Science and Technology Houari Boumediene)
22	Master of environmental engineering (University of Science and Technology Houari Boumediene)
23	State and institutions (University of Bechar)
24	Political and administrative organization (University of Bechar)
25	Environmentally Sustainable Development Law (Algiers 1 University)
26	Waqf system (Algiers 1 University)
27	Administrative law (Djilali Bounaama University)

Courses in Egypt

1	GIS (Alexandria University)
2	Methods of analysis and GIS (Cairo University)
3	GIS (UTI-HBRC)
4	Regional framework – demography (Cairo University)
5	Planning and urban upgrading (Ain Sham University)
6	Urban infrastructure (Ain Sham University)
7	Architecture (American University in Cairo)
8	Architecture (American University in Cairo)
9	Architecture engineering (German University in Cairo)
10	Architecture engineering (German university in Cairo)

11	Architectural systems engineering (Modern Sciences and Arts University)
12	Architectural engineering (Misr University of Science and Technology)
13	Architectural engineering (Arab Academy for Science Technology and Maritime Transport)
14	Architectural engineering and environmental design (Arab Academy for Science Technology and Maritime Transport)
15	Construction engineering and management area (Arab Academy for Science Technology and Maritime Transport)
16	Environmental engineering area (Arab Academy for Science Technology and Maritime Transport)
17	Architectural engineering (Higher Technology Institute)
18	Architectural engineering (Future University of Egypt)
19	Architectural engineering (Canadian International College)
20	Architecture and urban design (Nile University)
21	Land use (Alexandria University)
22	Spatial development of urban areas (Alexandria University)
23	Urban planning I and II (Cairo University)
24	Evolution of urbanism (Cairo University)
25	Detailed planning (Cairo University)
26	Urban planning theories (Cairo University)
27	Egyptian city (Cairo University)
28	Theories of regional development (Cairo University)
29	Sustainable urban development (Cairo University)
30	Development and urban planning (Cairo University)
31	Evolution of urban morphology (Cairo University)
32	Urban development (Cairo University)
33	Regional development (Cairo University)
34	Comprehensive urban development (Cairo University)
35	Theories and policies of regional planning (Cairo University)
36	Urban planning theories (Cairo University)
37	Urban planning theories (Cairo University)
38	Strategic planning for small cities (UTI-HBRC)
39	Sociology of development, population and urbanization (American University in Cairo)
40	Community development and organizing (American University in Cairo)
41	Urban economics (Cairo University)
42	Housing policies and real estate development (Ain Sham University)
43	Local economic development for small cities (UTI-HBRC)
44	Political science and society (American University in Cairo)
45	Concept and objectives of building regulations (Fayoum University)
46	Urban regulations and preparation of development codes and regulations (Fayoum University)
47	Private and public urban regulations (Fayoum University)
48	Concept and objectives of housing regulations (Fayoum University)
49	Laws and legislations (Cairo University)
50	Building laws (UTI-HBRC)
51	Land management (UTI-HBRC)
52	Land management and land subdivisions (Ain Sham University)

53	Housing policies and programmes (Ain Sham University)
54	Tools of urban control (Fayoum University)
55	Concepts for urban management (Fayoum University)
56	City governance and land management (Ain Sham University)
57	Urban management and legislations (Cairo University)
58	Theories and methodologies of urban planning (Alexandria University)

Courses in Libya

1	Essentials of statistics (Training Institute)
2	GIS (Training Institutes)
3	Master of science and earth sciences (University of Benghazi, Faculty of Science, Department of Earth Sciences)
4	Surveying (University of Benghazi)
5	Surveying fundamentals (University of Zawia)
6	GIS fundamentals (University of Zawia)
7	Remote sensing fundamentals (University of Zawia)
8	Mapping (University of Zawia)
9	General surveying (Tripoli University, College of Engineering, Department of Geological Engineering)
10	Remote sensing and geological applications (Tripoli University, College of Engineering, Department of Geological Engineering)
11	Site investigation (Tripoli University, College of Engineering, Department of Geological Engineering)
12	Photogeology (Tripoli University, College of Engineering, Department of Geological Engineering)
13	Remote sensing fundamentals (University of Sabratha)
14	AutoCAD civil 3D land programme Arrevite (Libyan Engineering syndicate)
15	GIS SEPC (Libyan Engineering Syndicate)
16	IDCL (Real estate Organization)
17	Survey diploma (Albareq Training Institute)
18	Survey diploma (Abn alhethm Training Institute)
19	Survey diploma (Urban development and planning)
20	GIS and remote sensing and surveying (Sebha University)
21	GIS and remote sensing (Survey Urban Planning, Benghazi Urban Observatory)
22	Introduction to ArcGIS, digital mapping and remote sensing (Libyan Society for Remote Sensing and GIS)
23	GIS and remote sensing (Alitkan)
24	GIS and remote sensing (Geospatial Libya Consulting)
25	GIS and remote sensing (Smart City GISIT)
26	GIS and remote sensing, CAD urban planning land survey (Johud Academy)
27	Land use change applications (Raqeem for Data Solutions)
28	Urban planning training (Libyan Urban Planning Society)
29	Master's in architecture and town planning (University of Benghazi, Department of Architecture and Town Planning)
30	Urban planning I and II (University of Benghazi)
31	Architecture and urban planning engineering (Misrata University, Faculty of Engineering)
32	Environment and urban planning (University of Sabratha)
33	Bachelor of economics and agricultural extension (University of Benghazi, Faculty of agriculture SLUK)

34	Principles of agricultural economics (Misrata University, Faculty of Agriculture)
35	Housing I and II (University of Benghazi)
36	Surveying fundamentals (University of Sabratha)

Courses in Morocco

1	Topography and survey (L'École Spéciale de la Géomatique et de la Topographie)
2	Topography and survey (Université Ibn Tofail)
3	Geomatic sciences and topography (Institut agronomique et vétérinaire Hassan II)
4	Survey and geomatic (Institut agronomique et vétérinaire Hassan II)
5	Geomatic sciences and topography (Ecole Hassania Des Travaux Publics)
6	GIS engineering (Université Abdelmalek Essaadi)
7	GIS and spatial planning (Institut agronomique et vétérinaire Hassan II)
8	Spatial management and geomatic (Ordre National des Ingénieurs Géomètres Topographes)
9	Geography (Université Chouaib Doukkali)
10	Spatial and urban planning (Institut National d'Aménagement et d'Urbanisme)
11	Architecture (L'Ecole Nationale d'Architecture)
12	Urban planning (L'Université Privée de Fès)
13	Architecture (L'Ecole d'Architecture de Casablanca)
14	Architecture (L'Ecole Supérieure d'Architecture de Rabat)
15	Regional development and sociology (Université Ibn Tofail)
16	Urban planning and urban risks (Institut National d'Aménagement et d'Urbanisme)
17	Urban planning and geography (University Sultan Moulay Slimane)
18	Rural development engineering (L'École Nationale d'Agriculture de Meknès)
19	Rural development engineering (Institut agronomique et vétérinaire Hassan II)
20	Forestry engineering (L'Ecole Nationale Forestière d'Ingénieurs)
21	Land valuation (L'Ecole Supérieure de Technologie de Kénitra)
22	Land and construction law (L'Ecole Supérieure de Technologie de Kénitra)
23	Real estate and valuation (University Mohamed V Rabat)
24	Private and public law (Université Cadi Ayyad)
25	Islamic law (Université Ibn Zohr)
26	Land and urban Law (University Mohamed V Rabat)
27	Land law and notary (Université Cadi Ayyad)
28	Notary and land conflicts (Université Hassan II – FSJES Ain Sebaa)
29	Land and notary law (Université Ibn Zohr)
30	Land and urban law (La Faculté Pluridisciplinaire de Nador – FPN)
31	Magistrate training (Institut supérieur de la magistrature)
32	Notary training (Institut supérieur de la magistrature)
33	Land studies (Université Abdelmalek Essaâd)
34	Civil and land law (Université Cadi Ayyad)
35	Land law and notary (Université Hassan II – FSJES Ain Sebaa)
36	Land law and business administration (University of Moulay Ismail)
37	Geospatial sciences and land governance (Mohamed I University)
38	Geosciences and land governance (Institut agronomique et vétérinaire Hassan II)

Courses in Sudan

1	Surveying
2	Surveying
3	Surveying
4	Geospatial studies
5	Surveying
6	Surveying
7	Surveying
8	Urban planning
9	Urban planning
10	Urban planning
11	Real estate valuation
12	Real estate valuation
13	Real estate valuation
14	Land governance

Courses in Tunisia

1	Advanced geospatial science and technology (GLTN)
2	GIS training course (UN-Habitat)
3	Geomatics and topography (Higher School of Engineers)
4	Geomatics and topography (Higher Institute of Technological Studies of Nabeul – ISETN)
5	Topography (Sector Training Centre for Public Works)
6	Geomatics and topography (School of Aeronautics and Technology – ESAT)
7	Planning, environment and geomatics (Faculty of Humanities and Social Sciences)
8	Town planning (Université de Carthage)
9	Sociology: development work on informal settlements (Faculty of Humanities and Social Sciences of Tunis)
10	Accreditation in tax law and international taxation (Sciences Po Tunis University)
11	Energy audit in building a regional training workshop (Regional Center for Renewable Energy and Energy Efficiency)
12	Sustainable urban planning and governance in Maghreb (Université de Carthage)
13	Urbanism and development (Université de Carthage)

Annex 4: Short Courses Offered in GCC Countries and Yemen

1	GIS applications (Sabah Salem University, Kuwait GIS User Group – NA)
2	GIS applications (Kuwait University – Open-ware)
3	Transit-oriented development (TOD) (Ministry of Municipality and Environment, Qatar)
4	Knowledge-based urban development (Ministry of Municipality and Environment, Qatar)
5	Urban design and planning approaches to deal with heritage areas in Qatar (Ministry of Municipality and Environment, Qatar)
6	Urban centres: concept and planning in contemporary cities (Ministry of Municipality and Environment, Qatar)
7	Commercial streets: concept and planning in contemporary cities (Ministry of Municipality and Environment, Qatar)
8	Design and planning of residential Neighbourhoods for Qatari families (Ministry of Municipality and Environment, Qatar)
9	Urban design and planning approaches to deal with coastal areas in Qatar (Ministry of Municipality and Environment, Qatar)
10	Geographical Information Center (Ministry of Municipality and Environment, Qatar)
11	Sustainable urbanism and environmentally conscious design (Qatar Green Building Council)
12	Bioclimatic design in hot climates (Qatar Green Building Council)
13	Green transportation (Gulf Organization for Research and Development, Qatar)
14	Urban connectivity introduction (Gulf Organization for Research and Development, Qatar)
15	Urban considerations (Gulf Organization for Research and Development, Qatar)
16	Land expropriation (KSA)
17	Real estate financing (KSA)
18	Certified training for real estate brokers (Dubai Land Department, UAE)
19	Registration trustee training (Dubai Land Department, UAE)
20	Certified course for real estate valuer (Dubai Land Department, UAE)
21	Accredited buyer representative – ABR (Dubai Land Department, UAE)
22	Certified property management – CPM (Dubai Land Department, UAE)
23	Certified mortgage broker course – CMB (Dubai Land Department, UAE)
24	Certified international property specialist – CIPS (Dubai Land Department, UAE)
25	Certified real estate brokerage manager – CRB (Dubai Land Department, UAE)
26	Project Management Professional (Society of Qatari Engineers, Qatar)
27	Owners association management programme – M100 (Dubai Land Department, UAE)
28	Owners association facility management programme – M201 (Dubai Land Department, UAE)
29	Risk management training for owner association managers – M205 (Dubai Land Department, UAE)

ABOUT THIS PAPER

This paper presents the results of a study of the education and training courses related to land governance in the Arab region and the key elements of their curricula. It assesses the quantity and thematic coverage of the learning offered and identifies the gaps and the opportunities for engaging with existing education and training institutions to complement the existing learning offer. Also, it provides suggestions and directions for establishing more comprehensive curricula on land governance across the region.

The regional assessment was carried out in 18 Arab states across the Mashreq (Iraq, Jordan, Lebanon, Palestine, Syria), the Gulf Cooperation Council (Bahrain, Kuwait, Qatar, Oman, Saudi Arabia, United Arab Emirates) and Yemen, and North Africa (Algeria, Egypt, Libya, Morocco, Sudan, Tunisia).

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